

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

- 1.-15. (Canceled)
16. (New) An isolated polypeptide comprising amino acids 1 to 378 of SEQ ID NO: 1.
17. (New) The isolated polypeptide of claim 16, wherein said polypeptide has been modified by deletion, insertion, or substitution of one or more amino acids, and wherein said modified polypeptide can synthesize theobromine using 7-methylxanthine as the substrate.
18. (New) The isolated polypeptide of claim 17, wherein said polypeptide has at least 90% homology to a polypeptide comprising amino acids 1 to 378 of SEQ ID NO: 1.